



GE Energy Rentals
A Power Systems Business

TM2500 Introduction





The TM2500

- ISO rated at 22.8 MW
- Mobile 4-trailer system based on S&SEP's proven LM2500 turbine generator set
 - More than 150 SSEP LM2500 gen-sets in service around the world
- Capable of operating on gas or liquid fuels at 60 Hz or 50 Hz and 42 ppm NOx w/ water injection
- 36.7% efficient

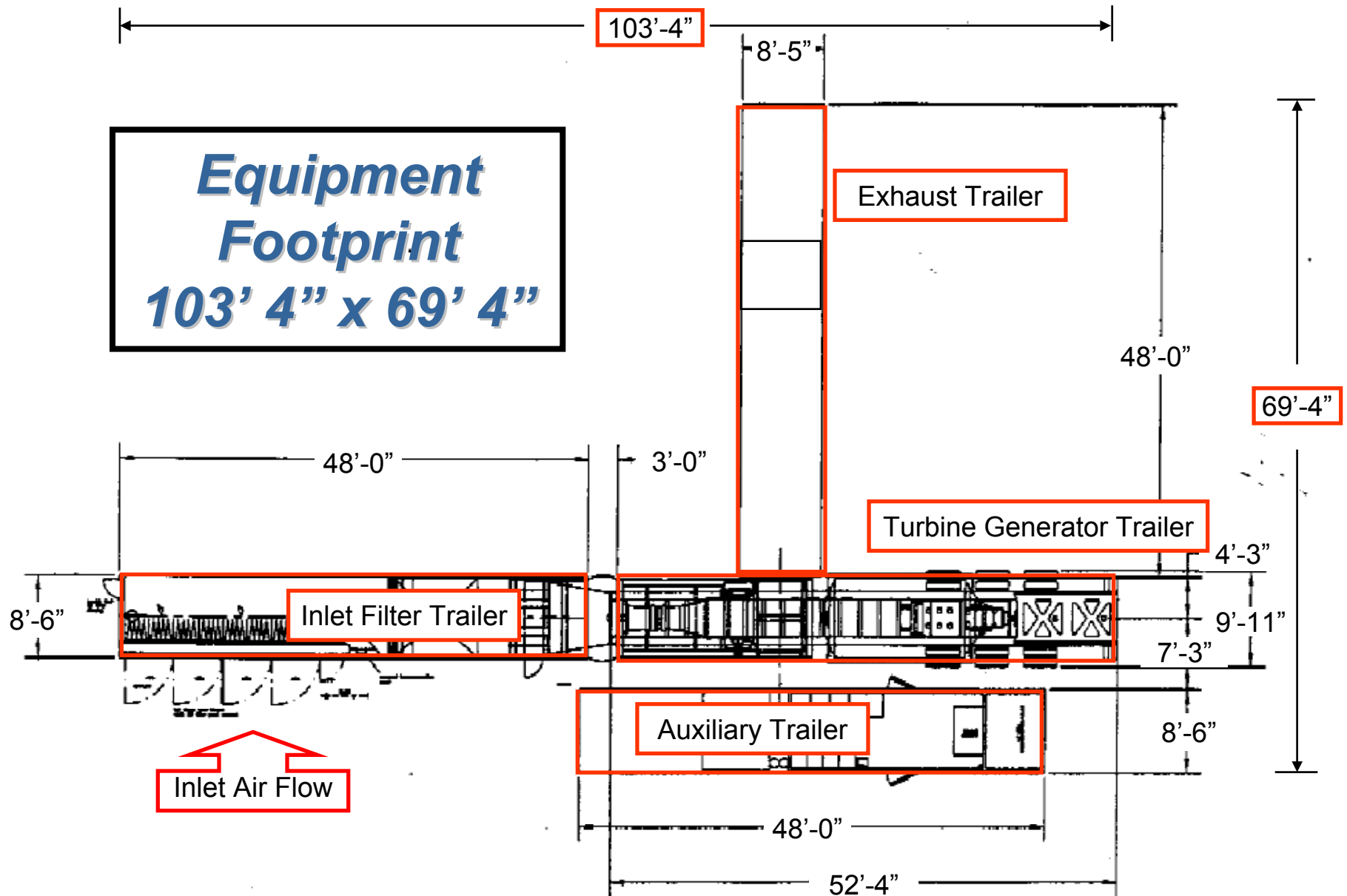


TM2500 Mobile Gas Turbine Generator

GE Proprietary Information



Layout - Equipment Arrangement

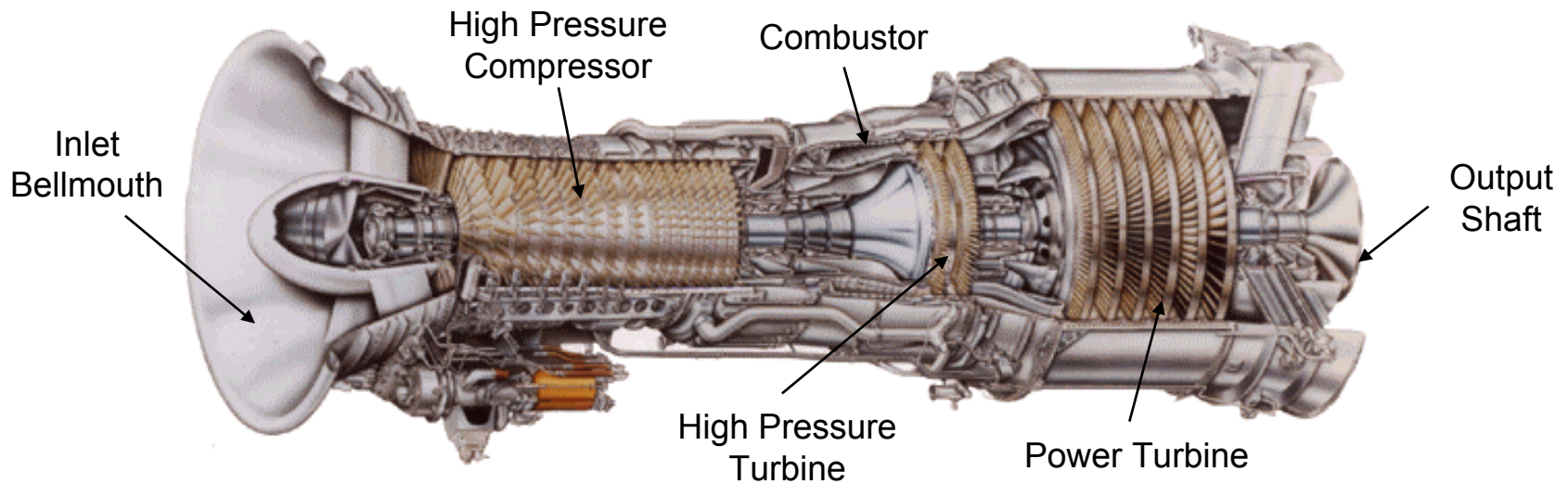




Turbine / Generator Trailer

Includes:

- LM2500 gas turbine
- Brush electrical generator
- GT and GTG lube oil tanks
- Weight = 219,000 lbs.
- Dimensions = L 48' x W 10' x H 13' 9"





Turbine / Generator Trailer

LM2500 Gas Turbine

- More than 500 industrial LM2500 gas turbines in service accumulating nearly 23 million industrial operating hours
- Either new production turbines or newly overhauled and upgraded to the most current production model, with new bearings, compressor airfoils, HPT blades, nozzles, and shrouds, and stage 1&2 PT airfoils
- Configured for either gas or liquid fuel operation with water injection for NOx abatement
- 150 gallon lube oil reservoir



Brush Electrical Generator

- Air-cooled generator w/ brushless excitation
- Suitable for Class 1, Group D, Div. 2 areas
- Rated at 32,550 KVA @ 0.90 pf, 59 deg. F cooling air, 13,800 volts, 60 Hz. (11,500 volts 50 Hz.)
- No changes required for 50 Hz operation
- 150 gallon lube oil reservoir





Inlet Trailer

Includes:

- Main Engine Air Filters
- GT Enclosure Air Filters / Fans
- Heating & Cooling provisions
- Weight = 45,000 lbs.
- Dimensions = L 48' x W 8'-6" x H 13' 6"



- Multi-stage inlet air filtration for gas turbine and enclosure ventilation air
 - Panel-type pre-filter and final barrier filter
 - Pressure switch for alarm (5" H₂O) and shutdown (8" H₂O) for excessive pressure drop
 - Nominal air flow 150,000 CFM (120,000 turbine / 30,000 enclosure ventilation)
 - Average inlet velocity is 4 m/s
- Heating/cooling connections allow for inlet air heating or cooling
- Inlet air silencing
- Access doors and lighting for inspection and service





Exhaust Trailer

Includes:

- Exhaust Silencers
- Turning vanes
- Weight = 47,000 lbs.
- Dimensions = L 48' x W 8' 6" x H 13' 6"



- Turbine exhaust gases turned and directed into the exhaust trailer by turbine enclosure exhaust duct
- Exhaust trailer directs hot exhaust gases upward
 - Stack height 20' fully assembled
 - Stack outlet dimensions 100.5" x 119.5"
 - Flow 490,000-550,000 pph
 - Exit temperature 935 deg. F
 - Silencers located in horizontal transition piece





Auxiliary Trailer

Includes:

- Lube Oil Skid, Hydraulic Skid, Fuel Control, Water Wash Skid, Control System, Battery Room, Main Circuit Breaker, Transformer, Gen. Cooling Air Duct
- Weight = 65,000
- Dimensions = L 48' x W 8' 6" x H 13' 6"



- Contains Woodward Netcon 5000 control system, and all auxiliary systems
- Advanced control system and Ethernet connection allows for desktop PC control of entire start cycle and auto-synchronization
- Multiple units can be brought on line simultaneously
- Units are equipped with remote monitoring and diagnostics capability





Summary

- Proven experience and reliability (Chicago & Ireland)
- Fuel flexibility and 50/60 Hz versatility
- Low emissions
- Small footprint
- Quick set-up
- Supported by GE strength and service structure

The GE Energy Rentals TM2500... Simply a Better Solution